Cisco Services-Ready Engine

Compact, Versatile, High-Performance Router Blade

The Cisco® Services-Ready Engine (SRE) modules are router blades for the Cisco Integrated Services Routers Generation 2 (ISR G2) that provide the capability to host Cisco, third-party, and custom applications. The modules have their own processors, storage, network interfaces, and memory that operate independently of the host router resources, helping ensure maximum concurrent routing and application performance. Moreover, the modules come in two compact form factors designed to reduce physical footprint, lower power consumption, and simplify hardware installation at the branch office. The Cisco SRE includes a software controller that enables you to install applications on the module remotely at any time. This solution can help your organization quickly deploy new branch-office applications on demand, reduce operating costs, and consolidate the branch-office infrastructure.

Cisco SRE offers the next-generation application hosting platform that combines networking, collaboration, compute and storage services, and centralized management into a cohesive system designed to simplify infrastructure, support evolving business needs, and reduce operating costs at the branch office. It integrates all elements necessary to optimize branch-office IT infrastructure for delivery of applications from the data center and deployment of branch-office applications on demand, and houses them under a single chassis - the Cisco ISR G2.

Figure 1 shows the Cisco SRE Internal Service Module (ISM) and the Cisco SRE Service Module (SM), and Table 1 summarizes features and benefits of the modules.

Figure 1. Cisco SRE Internal Service Module and Cisco SRE Service Module

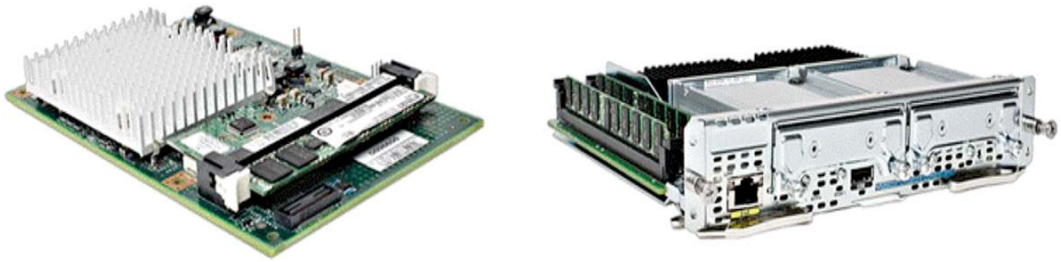

Table 1. Summary of Features and Benefits of Cisco Services-Ready Engine

Key Features	Key Benefits
• Ability to host Cisco, third-party, and custom applications • Small physical, energy, and carbon footprint • High-performance, high-capacity hardware • On-demand remote application provisioning • Centralized management and troubleshooting	• Consolidate and simplify branch-office infrastructure into one device • Save on energy bills, hardware support contracts, and onsite visits • Improve versatility and flexibility of branch-office infrastructure • Quickly and cost-effectively adapt branch-office services and applications to evolving business needs

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Consolidation at the Branch Office

Organizations today are turning to server centralization and consolidation of branch-office infrastructure in order to reduce cost and complexity of their IT systems. These initiatives, while delivering the sought-after benefits, often create a new set of challenges:

- **Application performance:** Business-critical applications hosted centrally must provide performance and user experience as if they were hosted locally.
- **Application survivability:** Applications and network services vital to business transactions at the branch office must function during a WAN outage.
- **Infrastructure flexibility:** Consolidated branch-office infrastructure must provide sufficient versatility and resources to accommodate on-demand deployment of new services.
- **Centralized management:** Management systems must include all infrastructure components, offer multi-branch-office automation capabilities, and work transparently over the WAN.

Cisco SRE has been designed to help your organization address these challenges. It provides hardware, infrastructure, and management components optimized for deployment and delivery of branch-office applications. Cisco SRE hosted network and collaboration services support the centralization of applications into the data center by optimizing WAN access and providing communication survivability. Cisco SRE hosted compute and storage services support hosting and on-demand deployment of business-critical applications that must reside in the branch office. The entire system is managed centrally with the CiscoWorks LAN Management Solution (CiscoWorks LMS).

Cisco SRE modules and software infrastructure enable remote deployment and on-demand hosting of Cisco, third-party, and custom applications. A services-ready deployment model decouples the Cisco SRE hardware from the application software, enabling you to provision applications on the module remotely at any time. These capabilities, the rich collection of branch-office services available in the Cisco IOS® Software, and the extensive set of network connectivity interfaces and modules - all integrated and housed under a single chassis - make the Cisco ISR G2 an ideal all-in-one platform for optimizing branch-office IT infrastructure.

The Cisco ISR G2 with Cisco SRE modules is the only device on the market today that can consolidate the functions of an entire branch office into a single box, eliminating the need for servers and appliances in the branch office.

The Cisco SRE Advantage

Designed to meet the needs of organizations of all sizes, Cisco SRE excels in five primary areas, discussed in the following sections.

Host Cisco, Third-Party, and Custom Applications

The Cisco SRE application hosting capabilities enable consolidation of branch-office IT infrastructure into a single box. Table 2 lists the branch-office applications supported on the Cisco SRE modules. The third-party applications listed in Table 2 are hosted on the Cisco Application Extension Platform (AXP) or Cisco Unified Computing System™ Express (UCS Express).

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Table 2. Applications Supported on Cisco SRE Modules

Category	Applications	Benefits
Network services	• Cisco Wireless LAN Controller (WLC) • Infoblox Core Network Services • Cisco Prime™ Network Analysis Module (NAM) • NetScout nGenius Integrated Agent • BlueCat Adonis DNS/DHCP and Proteus IPAM • LogLogic MX-Virtual Appliance • Visual Network Systems OmniPoint Element • Uplogix Local Management Platform	Improve efficiency of branch-office applications through visibility and management
Application services	• Cisco Wide Area Application Services (WAAS) • Cisco UCS Express • Cisco Application Extension Platform (AXP)	Improve the overall performance and reliability of branch-office solutions and enable server centralization
Unified communications	• Cisco Unity® Express • Cisco Unified SIP Proxy • Cisco Unified Messaging Gateway (UMG) • Cisco Survivable Remote Site Voicemail (SRSV) • Sagemcom Fax over IP • Singlewire Paging over IP • Open Text RightFax Fax over IP	Increase effectiveness of communication and collaboration through application and infrastructure integration
Security	• Cisco Video Surveillance • SecureLogix Voice Policy Firewall	Improve physical security, protect property, and comply with company and legislative policies
Industry applications	• Tiani Spirit Medical Data Exchange Solution • Orion Health Rhapsody Connect • Industry Weapon CommandCenterHD	Take advantage of applications that provide specific solutions addressing different business needs

Small Physical and Carbon Footprint

The Cisco SRE comes in two convenient form factors (Table 3): the small-footprint Cisco SRE Internal Service Module, which is installed inside the router, and the high-performance Cisco SRE Service Module, which is installed in one of the external slots on the router. The two form-factor options differ in the way they are supported on the various router models, as shown in Table 4. The capability to be housed inside of the Cisco ISR G2 chassis creates a powerful single-box device for a variety of branch-office applications. This solution has the following features:

- Unlike branch-office servers and appliances, Cisco SRE modules do not take up any additional physical space.
- Integration into the Cisco ISR G2 eliminates the need for cables, switch ports, power cords, and network interface cards (NICs).
- The Cisco SRE modules are highly energy-efficient, consuming only a fraction of the power required by branch-office servers and appliances.
- Remote power-on/power-off capability reduces power consumption when the module is not provisioned with any application; it can be scheduled for off hours.

The compactness of the combined Cisco ISR G2 and Cisco SRE solution translates into cost savings on power, cooling, cabling, and rack space, in turn leading to lower carbon emissions and natural resource waste.

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Table 3. Cisco SRE Module Types

Module	Specification
Cisco SRE Service Module (SM)	• The Cisco SRE Service Module is supported on Cisco 2911, 2921, 2951, 3925, 3925E, 3945, and 3945E Integrated Services Routers, part of the Cisco ISR G2 portfolio. • You can deploy 1 to 4 service modules per chassis, depending on the model of Cisco Integrated Services Routers Generation 2.
Cisco SRE Internal Services Module (ISM)	• The Cisco ISM is supported on Cisco 1941, 2901, 2911, 2921, 2951, 3925, and 3945 Integrated Services Routers, part of the Cisco ISR G2 portfolio. • You can deploy 1 ISM per chassis.

Table 4. Cisco SRE Modules Support on Cisco Integrated Services Routers

Model	Maximum Number of Cisco SRE Modules	Cisco SRE 300 ISMs	Cisco SRE 700, SRE 710, SRE 900, and SRE 910 Service Modules
Cisco 1941	1	1	
Cisco 2901	1	1	
Cisco 2911	2	1	1
Cisco 2921	2	1	1
Cisco 2951	3	1	2
Cisco 3925	3	1	2
Cisco 3925E	2	None	2
Cisco 3945	5	1	4
Cisco 3945E	4	None	4

High-Performance, High-Capacity Hardware

The Cisco SRE modules offer compute performance and storage capacity on par with typical branch-office servers or appliances. The various Cisco SRE modules provide different processor, storage, and memory options for applications with different performance requirements. The hardware specifications are provided in Table 6 (later in this document). Following are the main features:

- x86 64-bit single- or multicore processor options
- Up to 1 terabyte of hard disk storage capacity
- Redundant Array of Independent Disks (RAID) 1 on Cisco SRE 900 and SRE 910 Service Modules
- Hot-swappable disk on Cisco SRE 900 and SRE 910 Service Modules
- Field-replaceable disks on Cisco SRE 700, SRE 710, SRE 900, and SRE 910 Service Modules
- Hardware-assisted virtualization and embedded cryptography chip

All of the Cisco SRE hardware is independent of the host router resources, helping ensure maximum concurrent routing and application performance. The module is connected to the router through an internal Gigabit Ethernet link. High-performance hardware allows CPU and disk-hungry applications to be hosted on the Cisco SRE module. The embedded cryptography chip supports common standard cryptography algorithms and provides additional acceleration for security applications.

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On-Demand Application Provisioning

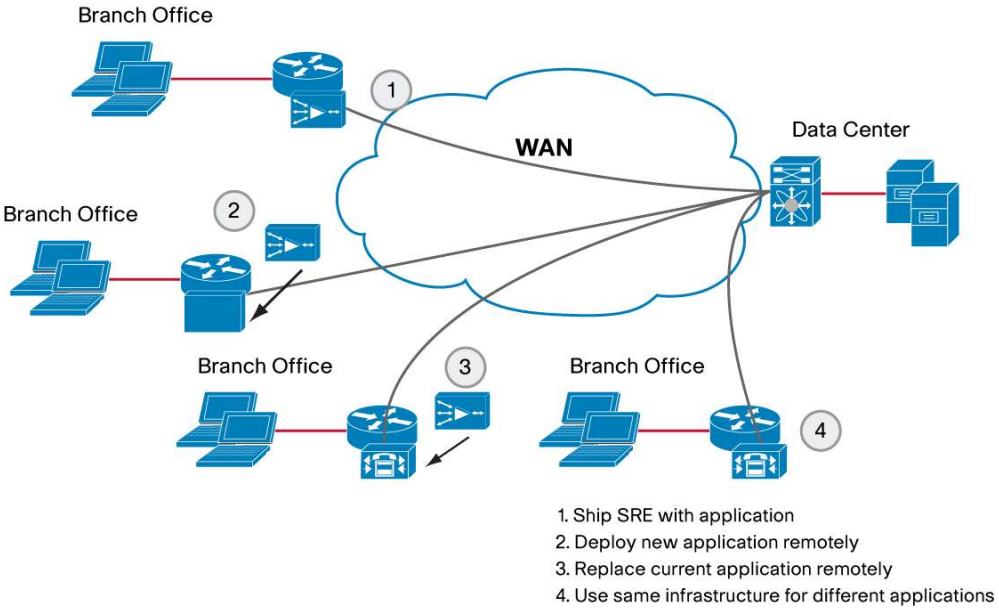
You can easily install, replace, or uninstall applications from the Cisco SRE hosting infrastructure using familiar Cisco device and network management tools. The management tools allow you to replace one type of application with a different, even unrelated type of application on one or a group of Cisco SREs. Moreover, you can deploy the Cisco SRE in the branch office without any application when the network is being installed and quickly provision it with a supported application at a later time. Finally, you can use the same, consistent hardware footprint to host different applications in different branch offices. Figure 2 shows the various Cisco SRE provisioning options:

- Install a branch-office application on the Cisco SRE module at network deployment time.
- Install a branch-office application on the Cisco SRE at a later time.
- Replace one branch-office application with another application without any hardware changes.
- Use the same infrastructure to run various applications in different branch offices.

The on-demand provisioning capabilities of the Cisco SRE modules provide the following business benefits:

- **Lower total cost of ownership (TCO):** Cisco SRE modules eliminate the future cost of field deployment. You can provision new applications remotely through the CiscoWorks LMS or Cisco Configuration Professional application without any hardware or wiring modifications in the branch office.
- **Improved infrastructure flexibility:** Cisco SRE modules shorten the time to market for deploying new applications. You can address new business opportunities quickly by provisioning applications in branch offices that have been preconfigured with the Cisco SRE module.
- **Infrastructure future-proofing:** Cisco SRE modules provide flexibility to meet changing business requirements. The Cisco SRE modules can replace an application with a different, more relevant one.

Figure 2. Using the Same Cisco SRE Infrastructure for Different Applications



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Centralized Management and Troubleshooting

You can provision and manage applications hosted on the Cisco SRE with Cisco Configuration Professional, the command-line interface (CLI), and CiscoWorks LMS. These familiar network management (Table 5) tools offer both single- and multidevice management options. In addition, the Cisco SRE modules come with an onboard hardware diagnostic tool for monitoring the health of the hardware or troubleshooting problems. Centralized management for Cisco SRE modules provides the following features:

- Automated discovery reports the type, capacity, and properties of deployed modules and applications.
- Centralized monitoring reports the health and status of deployed modules.
- Centralized provisioning enables remote installation, upgrade, and uninstallation of applications.

Network management applications are instrumental in lowering operating expenses (OpEx) while improving network availability by simplifying and automating many of the day-to-day tasks associated with managing a branch-office network.

Table 5. Cisco SRE Supported Network Management Applications

Application	Description	Version
CiscoWorks LMS	CiscoWorks LMS is a suite of integrated applications for simplifying day-to-day management of a Cisco end-to-end network, lowering OpEx while increasing network availability. CiscoWorks LMS offers network managers an easy-to-use web-based interface for configuring, administering, monitoring, and troubleshooting the network, saving time in configuring new services and reducing the time required to quickly isolate and fix network problems.	3.2 and later
Cisco Configuration Professional	This GUI-based device-management tool for Cisco access routers simplifies configuration of routing, firewall, intrusion prevention system (IPS), VPN, unified communications, and WAN and LAN with easy-to-use wizards. Cisco Configuration Professional is a valuable productivity-enhancing tool for network administrators and channel partners for deploying routers with increased confidence and ease. It offers a one-click router lockdown and an innovative voice and security auditing capability to check and recommend changes to router configuration. The application also monitors router status and troubleshoots WAN and VPN connectivity problems. Cisco Configuration Professional is free; you can download it at http://www.cisco.com/go/ciscocp.	2.0 and later

Product Specifications

Table 6 provides detailed specifications for all Cisco SRE module models.

Table 6. Cisco SRE Module Product Specifications

Feature	Cisco SRE 300 ISM	Cisco SRE 700 and SRE 710 SMs	Cisco SRE 900 and SRE 910 SMs
Product part number	ISM-SRE-300-K9	SM-SRE-700-K9 SM-SRE-710-K9	SM-SRE-900-K9 SM-SRE-910-K9
Form factor	ISM	SM	SM
CPU	Genuine Intel Processor, 1.06 GHz	Intel Core2 Solo, 1.86 GHz	Intel Core2 Duo, 1.86 GHz
DRAM	512 MB	4 GB	4 GB (default) or 8 GB
Compact Flash memory	4-GB internal USB flash-memory module	2-GB internal USB flash-memory module	2-GB internal USB flash-memory module
Hard disk	None	One 500-GB SATA 5400 rpm (SRE 700) 7200 rpm (SRE 710)	Two 500-GB SATA (1 TB in non-RAID mode) 5400 rpm (SRE 900) 7200 rpm (SRE 910)
Hot-swappable hard disk drive (HDD)	None	None	Yes
RAID support	None	None	RAID 0 or 1 (application dependant)

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Feature	Cisco SRE 300 ISM	Cisco SRE 700 and SRE 710 SMs	Cisco SRE 900 and SRE 910 SMs
Internal network interfaces	Gigabit Ethernet connectivity to router backplane	Gigabit Ethernet connectivity to router backplane	Gigabit Ethernet connectivity to router backplane
External network interfaces	None	One USB connector One RJ-45 Gigabit Ethernet connector	One USB connector One RJ-45 Gigabit Ethernet connector
Router platforms	Cisco 1941, 2901, 2911, 2921, 2951, 3925, and 3945 Integrated Services Routers	Cisco 2911, 2921, 2951, 3925, 3925E, 3945, and 3945E Integrated Services Routers	Cisco 2911, 2921, 2951, 3925, 3925E, 3945, and 3945E Integrated Services Routers
Cisco IOS Software (on router)	Release 15.0(1)M	Release 15.1(4)M	Release 15.1(4)M
Embedded hardware-based cryptography acceleration	No	No	Yes
Supported Applications			
Applications	• Cisco Unity Express • Cisco Application Extension Platform (AXP) • Cisco Wireless LAN Controller (WLC)	• Cisco Unity Express • Cisco UCS Express • Cisco AXP • Cisco WLC • Cisco Wide Area Application Services (WAAS) • Infoblox Core Network Services • Cisco Prime Network Analysis Module (NAM) • Cisco Unified SIP Proxy • Cisco Unified Messaging Gateway (UMG) • Cisco Survivable Remote Site Voicemail (SRSV) • Sagemcom Fax over IP • Tiani Spirit Medical Data Exchange Solution • Orion Health Rhapsody Connect • NetScout nGenius Integrated Agent • BlueCat Adonis DNS/DHCP and Proteus IPAM • LogLogic MX-Virtual Appliance • SecureLogix Voice Policy Firewall • Open Text RightFax Fax over IP • Visual Network Systems OmniPoint Element • Uplogix Local Management Platform • IndustryWeapon CommandCenterHD	• Cisco Unity Express • Cisco UCS Express • Cisco AXP • Cisco WLC • Cisco WAAS • Cisco Video Surveillance • Infoblox Core Network Services • Cisco Prime Network Analysis Module (NAM) • Cisco Unified SIP Proxy • Cisco Unified Messaging Gateway (UMG) • Cisco Survivable Remote Site Voicemail (SRSV) • Sagemcom Fax over IP • Tiani Spirit Medical Data Exchange Solution • Orion Health Rhapsody Connect • NetScout nGenius Integrated Agent • BlueCat Adonis DNS/DHCP and Proteus IPAM • LogLogic MX-Virtual Appliance • SecureLogix Voice Policy Firewall • Open Text RightFax Fax over IP • Visual Network Systems OmniPoint Element • Uplogix Local Management Platform • Industry Weapon CommandCenterHD
Power Specifications			
Power consumption (maximum)	20W	35W	50W
Physical Specifications			
Dimensions (H x W x D)	0.85 x 4 x 6.1 in. (2.2 x 10.2 x 15.5 cm)	1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm)	1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm)
Shipping dimensions (H x W x D with packaging)	9.45 x 7.18 x 2.38 in. (24 x 18.4 x 6.05 cm)	9.5 x 7.5 x 2.5 in. (24.1 x 19.1 x 6.4 cm)	9.5 x 7.5 x 2.5 in. (24.1 x 19.1 x 6.4 cm)
Maximum weight	0.5 lb (0.206 kg)	2.5 lb (1.1 kg)	2.5 lb (1.1 kg)
Environmental Specifications			
Operating Conditions			
Operating temperature	Per operating requirements of deployable platform	32 to 104°F (0 to 40°C) normal 23 to 131°F (-5 to +55°C) short term	32 to 104°F (0 to 40°C) normal 23 to 131°F (-5 to +55°C) short term

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Feature	Cisco SRE 300 ISM	Cisco SRE 700 and SRE 710 SMs	Cisco SRE 900 and SRE 910 SMs
Humidity	Per operating requirements of deployable platform	10 to 85% operating	10 to 85% operating
Altitude (operating)	Per operating requirements of deployable platform	104°F (40°C) at sea level 104°F (40°C) at 6,000 ft (1,800m) 86°F (30°C) at 13,000 ft (4,000m) 27.2°C (81°F) at 15,000 ft (4,600m) Note: De-rate 34.5°F (1.4°C) per 1,000 ft above 6,00 0 ft (per 300m above 2,600m)	
Transportation and Storage Conditions			
Temperature	-13 to 158°F (-25 to +70°C)	-4 to 149°F (-20 to +65°C)	-4 to 149°F (-20 to +65°C)
Relative humidity	5 to 95%	5 to 95%	5 to 95%
Altitude	15,000 ft (4,600m)	15,000 ft (4,600m)	15,000 ft (4,600m)
Regulatory Compliance			
Safety	Per safety requirements of deployable platform	• UL 60950-1, First Edition, Standard for safety for information technology equipment (US) • CAN/CSA-C22.2 No. 60950-1-03, Safety of information technology equipment including electrical business equipment (Canada) • IEC 60950-1:2001, Safety of information technology equipment/Second Edition - 2005) (World-Wide)- 2nd Ed. 2005 (optional) • EN 60950 -1:2001, Safety of information technology equipment (CENELEC; includes EU and EFTA) • GB4943-2001, Safety of information technology equipment (PRC) • AS/NZS 60950-1, Safety of information technology equipment including electrical business equipment (Australia) • NOM-019, Safety of data processing equipment (Mexico)	
EMC	AS/NZS 3548: 1995 incorporating Amendments 1 and 2; Class A (Australia) CISPR 22: 1997; Class A (International) Code of Federal Regulations, Title 47, Part 15, Sub-part B: 2000; Class A (United States - FCC) CNS-13438 (Taiwan) EN55022: 1998, EN61000-3-2: 1995, EN61000-3-3: 1995, EN55024: 1998, EN50082-1: 1997 (European Union & Eastern Block) EN300386: 2000; Class A (European Union - licensed telecommunications network equipment operators) ICES-003 Issue 3, 1998 (Canada) VCCI V-3/00.04 (Japan)	Emission: • 47 CFR Part 15 Class A • CISPR22 Class A • EN300386 Class A • EN55022 Class A • EN61000-3-2 • EN61000-3-3 • SD/EMI (India) • KN22 (Korea) • VCCI Class I • AS/NZS CISPR 22 Class A Immunity: • CISPR24 • EN300386 • EN50082-1 • EN55024 • SD/EMI (India) • KN22 (Korea) • EN61000-6-1	

Ordering Information

For information about how to order the Cisco SRE modules, please visit the Cisco ISR G2 Ordering Guide. To place an order, visit the Cisco Ordering Home Page and refer to Tables 7 and 8. For additional product numbers, including the Cisco SRE bundle offerings, please check the Cisco price list or contact your local Cisco account representative.

To download software, please visit the Cisco Software Center.

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Table 7. Cisco SRE Ordering Information

Product Number	Product Description
ISM-SRE-300-K9	512MB DRAM, 4GB flash storage
SM-SRE-700-K9	4GB DRAM, 2G flash storage, 500GB 5400 rpm SATA hard disk, field replaceable hard disk
SM-SRE-710-K9	4GB DRAM, 2G flash storage, 500GB 7200 rpm SATA hard disk, field replaceable hard disk
SM-SRE-900-K9	4GB (default) or 8GB DRAM, 2GB flash storage, 2 x 500GB 5400 rpm SATA hard disk (1 TB storage), embedded cryptography chip, RAID 0,1 support (application dependant), hot swappable hard disk
SM-SRE-910-K9	4GB (default) or 8GB DRAM, 2GB flash storage, 2 x 500GB 7200 rpm SATA hard disk (1 TB storage), embedded cryptography chip, RAID 0,1 support (application dependant), hot swappable hard disk
SM-DSK-SATA-500GB=	Spare 500GB 5400 rpm SATA hard disk for SM-SRE-900-K9
SM-HDD-SATA-500GB=	Spare 500GB 7200 rpm SATA hard disk for SM-SRE-910-K9
SM-MEM-VLP-4GB	Optional memory upgrade for SM-SRE-900-K9 and SM-SRE-910-K9 (no field upgrades, factory install only)

Table 8. Cisco SRE and Cisco ISR G2 Bundles

Ordering SKU	Description
C1941-SEC-SRE/K9	Cisco 1941,SRE 300, and SEC license PAK bundle
C2901-VSEC-SRE/K9	Cisco 2901, SRE 300, PVDM3-16, UC and SEC License PAK bundle
C2911-VSEC-SRE/K9	Cisco 2911, SRE 300, PVDM3-16, UC and SEC License PAK bundle
C2921-VSEC-SRE/K9	Cisco 2921, SRE 700 or SRE 710, PVDM3-32, UC and SEC License PAK bundle
C2951-VSEC-SRE/K9	Cisco 2951, SRE 700 or SRE 710, PVDM3-32, UC and SEC License PAK bundle
C2911-VSEC-PSRE/K9	Cisco 2911, SRE 910, PVDM3-16, UC and SEC License PAK bundle
C2921-VSEC-PSRE/K9	Cisco 2921, SRE 910, PVDM3-32, UC and SEC License PAK bundle
C2951-VSEC-PSRE/K9	Cisco 2951, SRE 910, PVDM3-32, UC and SEC License PAK bundle
C3925-VSEC-SRE/K9	Cisco 3925, SRE 700 or SRE 710, PVDM3-64, UC and SEC License PAK bundle
C3945-VSEC-SRE/K9	Cisco 3945, SRE 700 or SRE 710, PVDM3-64, UC and SEC License PAK bundle
C3925-VSEC-PSRE/K9	Cisco 3925, SRE 900 or SRE 910, PVDM3-64, UC and SEC License PAK bundle
C3945-VSEC-PSRE/K9	Cisco 3945, SRE 900 or SRE 910, PVDM3-64, UC and SEC License PAK bundle
C3925E-VSEC-SRE/K9	Cisco 3925, SRE 900 or SRE 910, PVDM3-64, UC and SEC License PAK bundle
C3945E-VSEC-SRE/K9	Cisco 3945, SRE 900 or SRE 910, PVDM3-64, UC and SEC License PAK bundle
C2911-WAAS-SEC/K9	Cisco 2911, SRE 700 or SRE 710, Sec PAK, WAAS Enterprise Small License
C2921-WAAS-SEC/K9	Cisco 2921, SRE 700 or SRE 710, Sec PAK, WAAS Enterprise Medium License
C2951-WAAS-SEC/K9	Cisco 2951, SRE 900 or SRE 910, Sec PAK, WAAS Enterprise Large License
C3925-WAAS-SEC/K9	Cisco 3925, SRE 900 or SRE 910, Sec PAK, WAAS Enterprise Large License
C3945-WAAS-SEC/K9	Cisco 3945, SRE 900 or SRE 910, Sec PAK, WAAS Enterprise Large License
C3945-UCSE/K9	Cisco 3945 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C3925-UCSE/K9	Cisco 3925 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C2951-UCSE/K9	Cisco 2951 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C2921-UCSE/K9	Cisco 2921 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 2.5 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C2911-UCSE/K9	Cisco 2911 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 2.5 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C3945-ES24-UCSE/K9	Cisco 3945 ES24 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 24 port Layer 3 PoE EtherSwitch SM, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C3925-ES24-UCSE/K9	Cisco 3925 ES24 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 24 port Layer 2 PoE EtherSwitch SM, PoE Power Supply, 4 GB ISR DRAM, 768 MB Compact Flash, IMC Software

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Ordering SKU	Description
C2951-ES24-UCSE/K9	Cisco 2951 ES24 UCSE Bundle, SRE 900 or SRE 910,SRE-V License, 24 port Layer 2 EtherSwitch SM, PoE Power Supply, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C3945-WAAS-UCSE/K9	Cisco 3945 UCSE Bundle, two SRE 900 or SRE 910,SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C3925-WAAS-UCSE/K9	Cisco 3925 UCSE Bundle, two SRE 900 or SRE 910,SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software
C2951-WAAS-UCSE/K9	Cisco 2951 UCSE Bundle, two SRE 900 or SRE 910,SRE-V License, WAAS Enterprise Medium License, 4 GB ISR DRAM, 768 MB ISR Compact Flash, IMC Software

Warranty Information

Warranty information is available on Cisco.com at the Product Warranties page.

Service and Support Information

Cisco SRE hardware service and support is covered by the Cisco SMARTnet® contract for the router in which the module will reside. Cisco SRE application software has an associated Cisco Software Application Support plus Upgrades (SASU) option, which you must purchase separately. In other words, Cisco SRE application support is not included in the router or router bundle Cisco SMARTnet contract. A single SASU contract attaches to a single Cisco SRE module, and any Cisco application running on that module is covered. There are three different SASU contracts, each corresponding to one of the three Cisco SRE modules (Cisco SRE 300 ISM, Cisco SRE 700 and SRE 710 SMs, and Cisco SRE 900 and SRE 910 SMs), as shown in Table 9.

Table 9. SASU Service Contracts for Cisco SRE

Part Number	Description
CON-SAU-ISRE300	Software Application Support Plus Upgrade for Cisco SRE 300 ISM applications
CON-SAU-ISMISRE3	Software Application Support Plus Upgrade for Cisco SRE 300 ISM applications in ISR bundle
CON-SAU-SMSRE700	Software Application Support Plus Upgrade for Cisco SRE 700 and Cisco SRE 710 SM applications
CON-SAU-SMSRE7K	Software Application Support Plus Upgrade for Cisco SRE 700 and Cisco SRE 710 SM applications in ISR bundle
CON-SAU-SMSRE900	Software Application Support Plus Upgrade for Cisco SRE 900 and Cisco SRE 910 SM applications
CON-SAU-SMSRE9K	Software Application Support Plus Upgrade for Cisco SRE 900 and Cisco SRE 910 SM applications in ISR bundle

For More Information

For more information about the Cisco SRE modules, please visit http://www.cisco.com/go/SRE or contact your local Cisco account representative.

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San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
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